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FIG. 2A

A

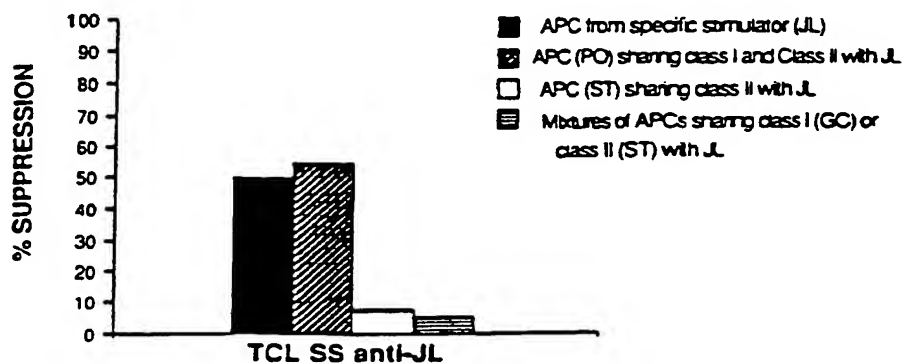
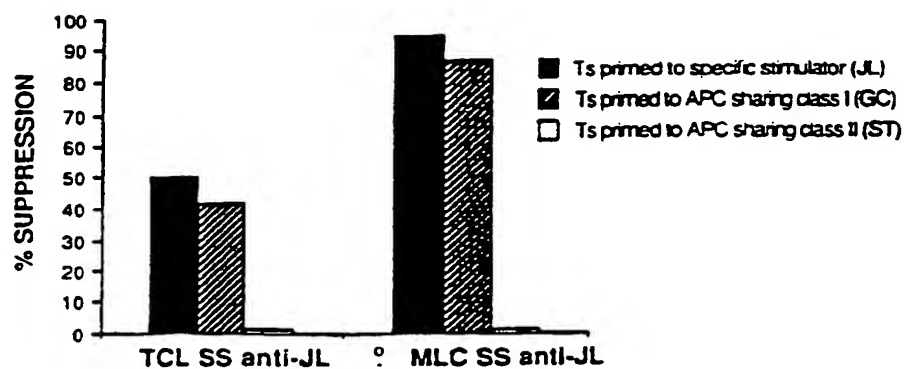


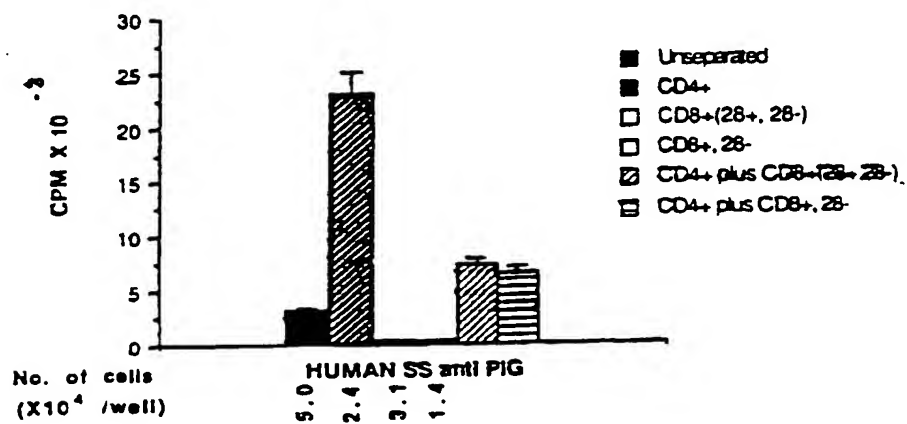
FIG. 2B

B



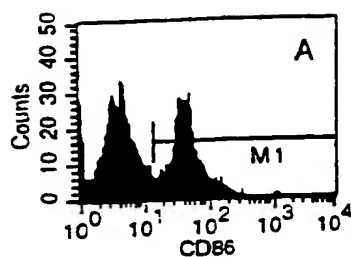
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FIG. 3



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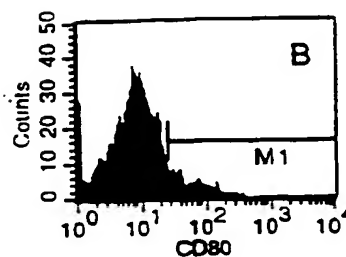
FIG. 4A



% Pos MFI

40 47

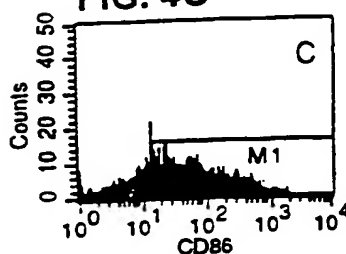
FIG. 4B



% Pos MFI

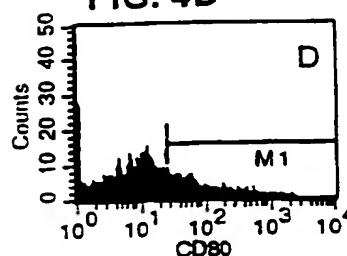
8 59

FIG. 4C



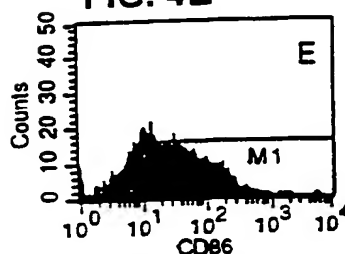
73 123

FIG. 4D



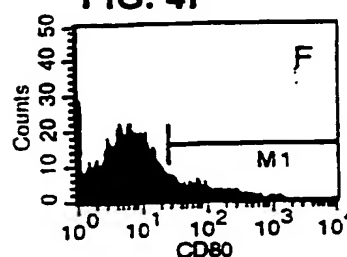
27 144

FIG. 4E



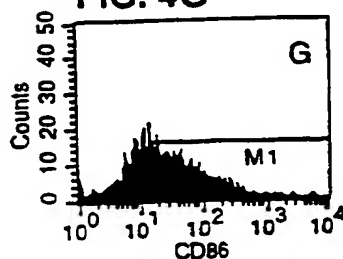
63 78

FIG. 4F



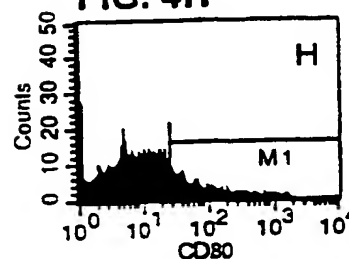
13 128

FIG. 4G



61 74

FIG. 4H

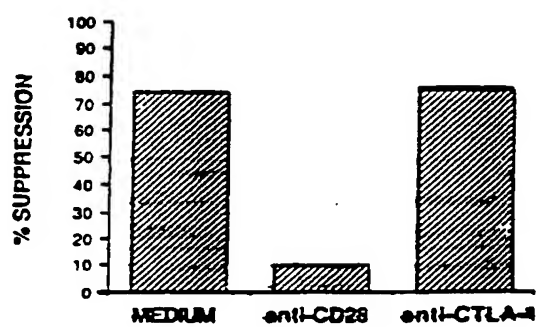


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FIG. 5



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FIG. 6A

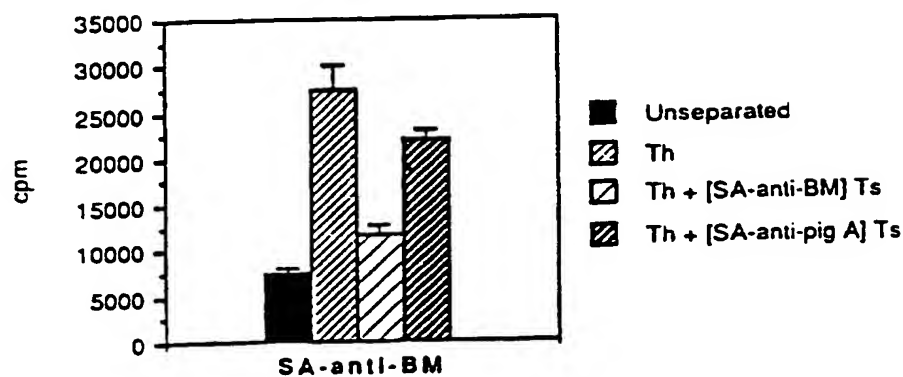
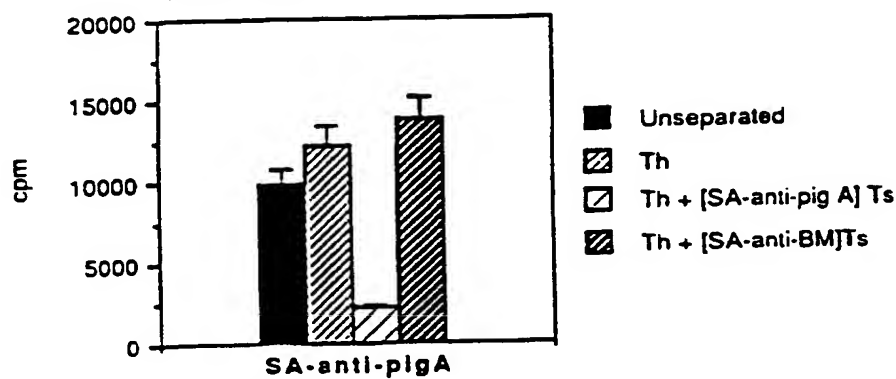


FIG. 6B



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FIG. 7A

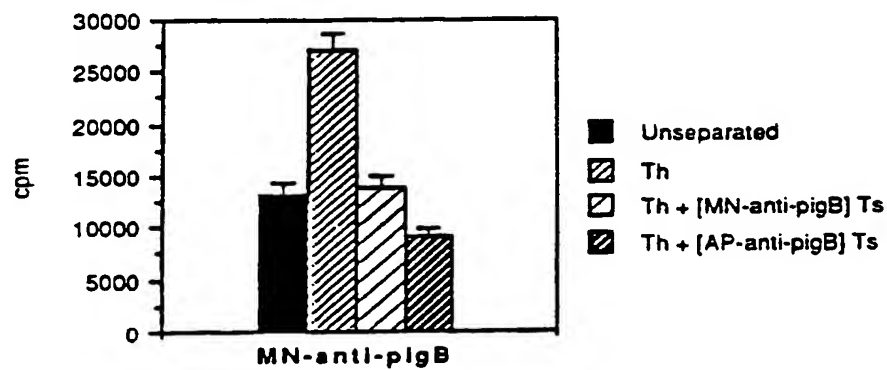
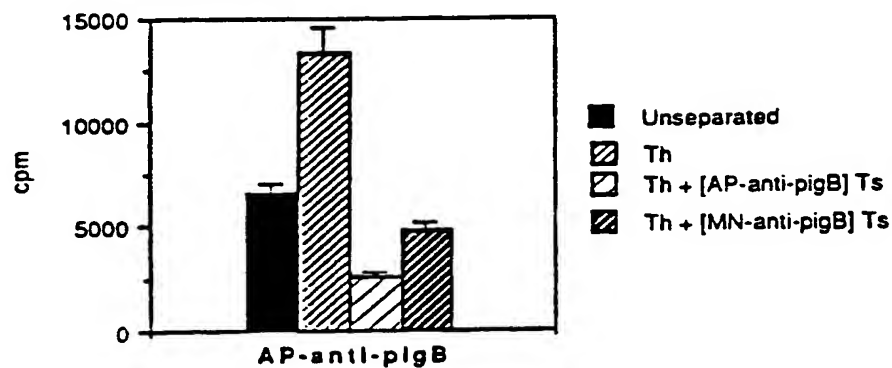


FIG. 7B



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FIG. 8A

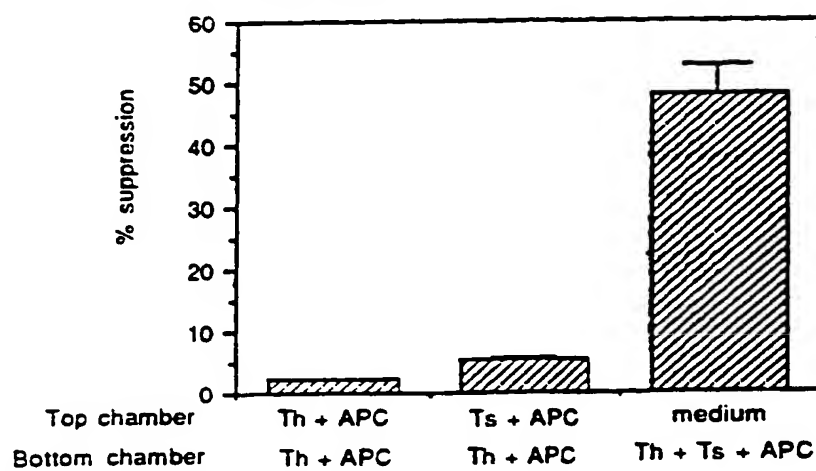
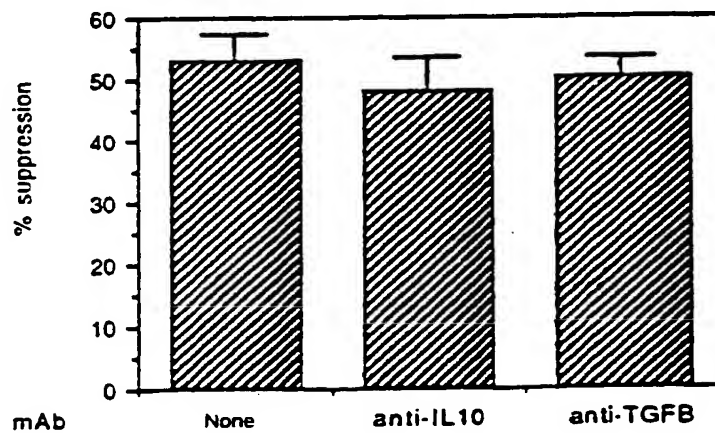


FIG. 8B



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FIG. 9D

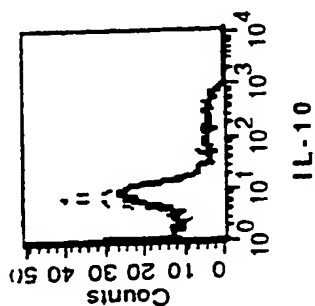


FIG. 9C

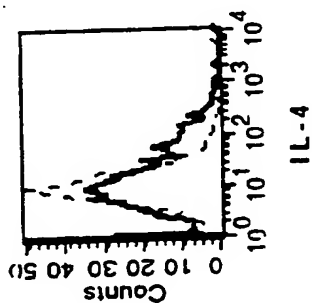


FIG. 9B

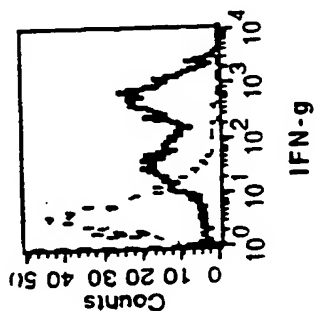
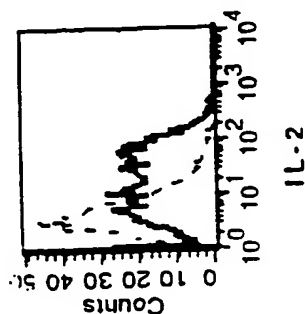


FIG. 9A

T helper cells



T suppressor cells

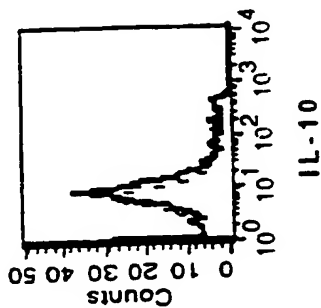


FIG. 9H

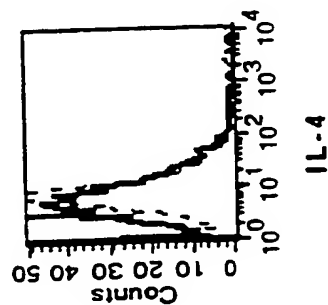


FIG. 9G

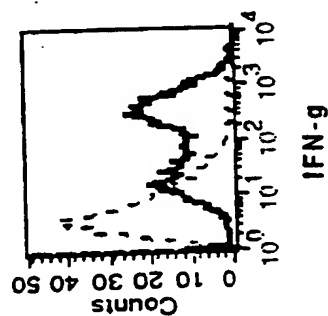


FIG. 9F

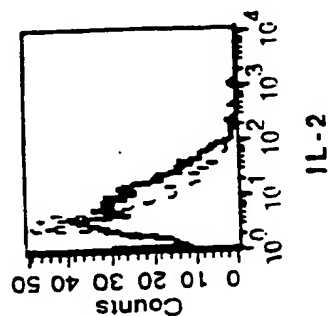


FIG. 9E

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FIG. 10A

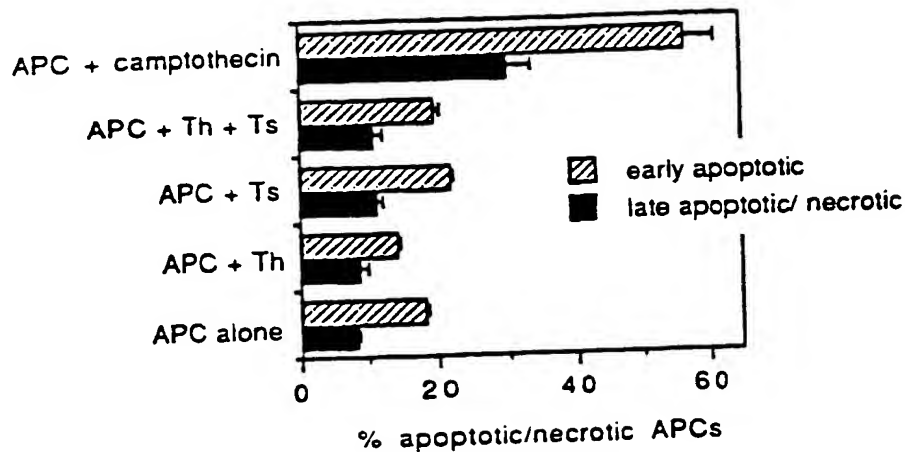


FIG. 10B

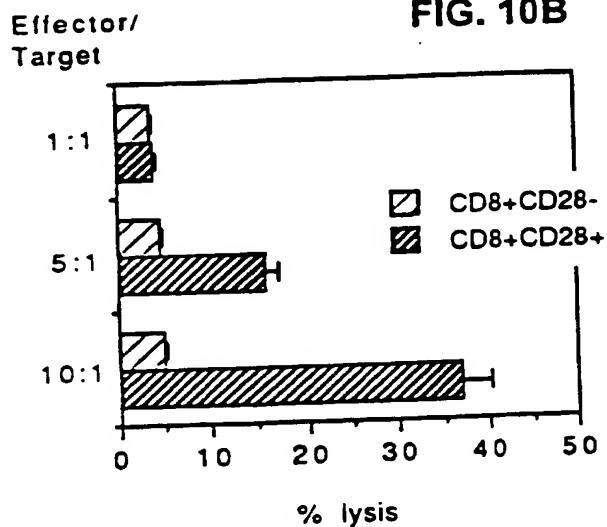
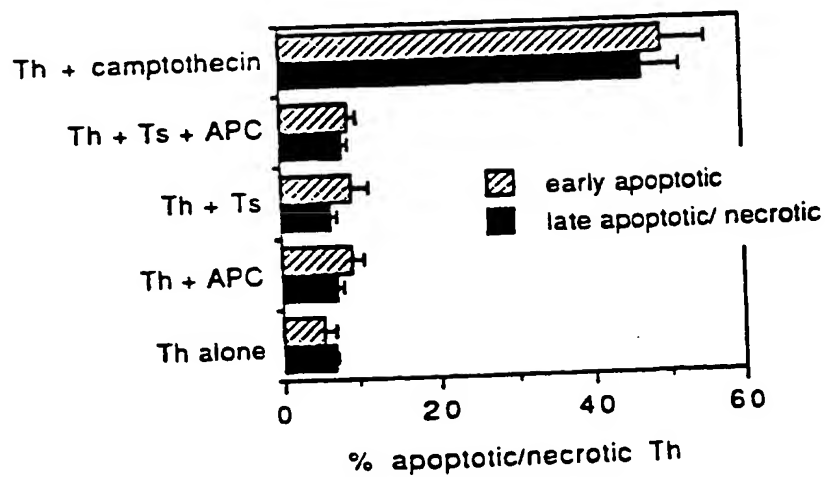


FIG. 10C



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FIG. 11A

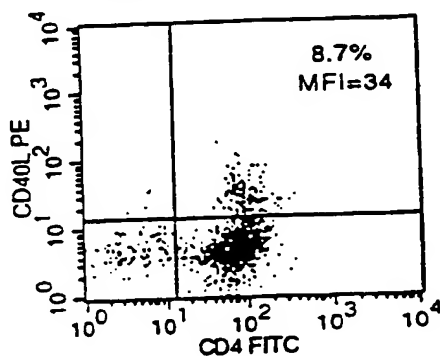


FIG. 11B

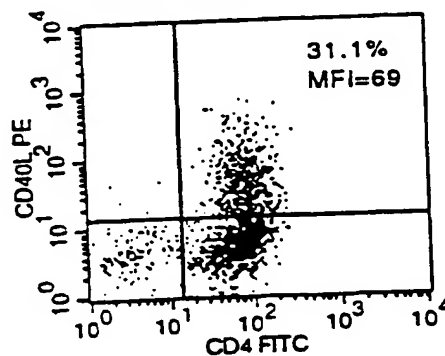


FIG. 11C

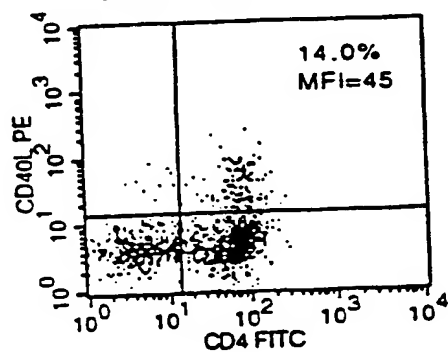
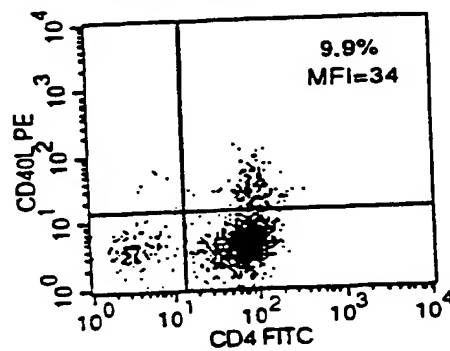


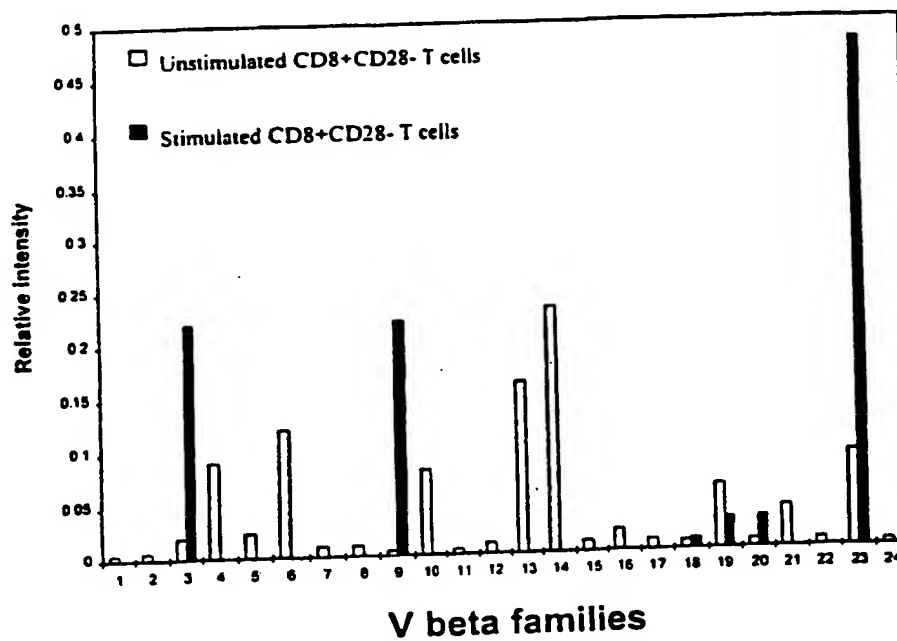
FIG. 11D



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FIG. 12



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FIG. 13A

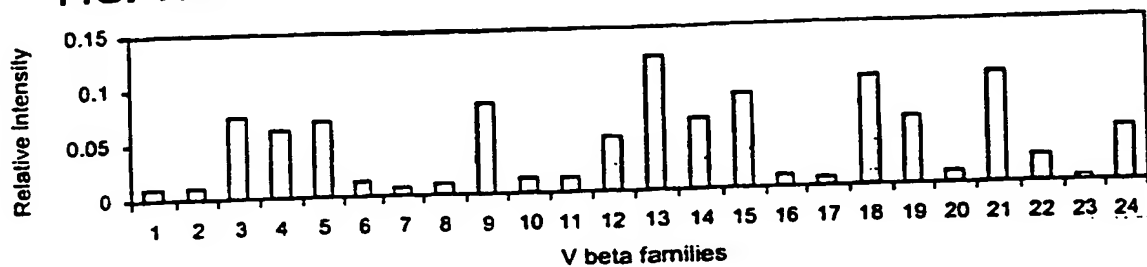


FIG. 13B

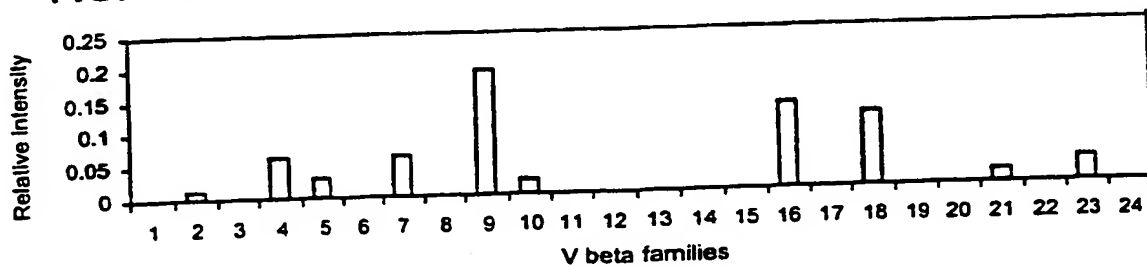


FIG. 13C

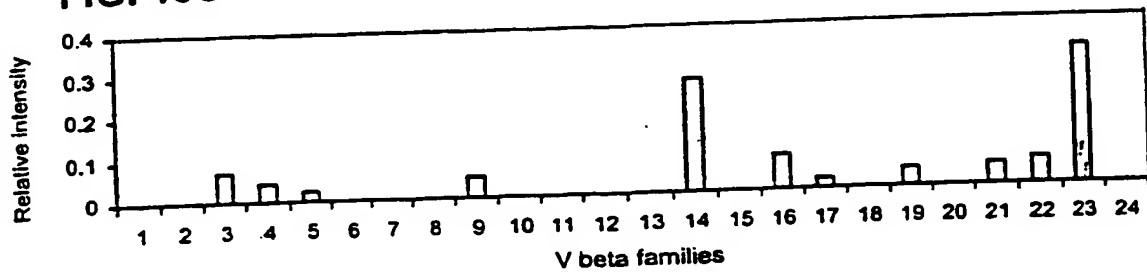
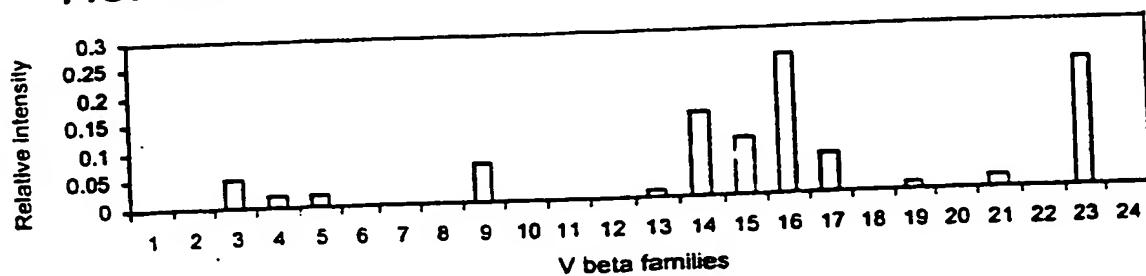


FIG. 13D



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FIG. 14A

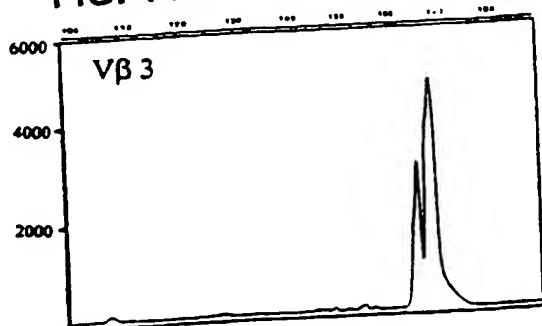


FIG. 14B

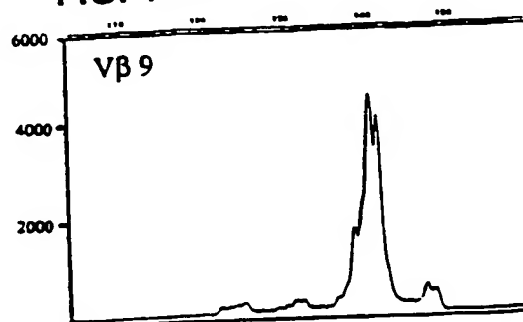


FIG. 14D

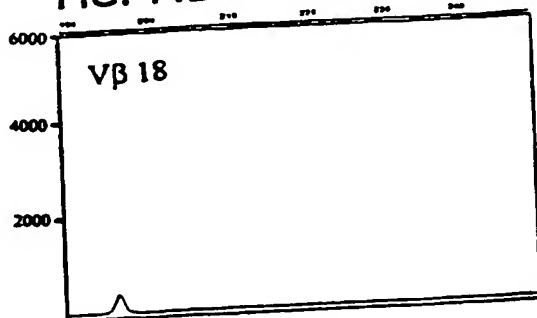


FIG. 14C

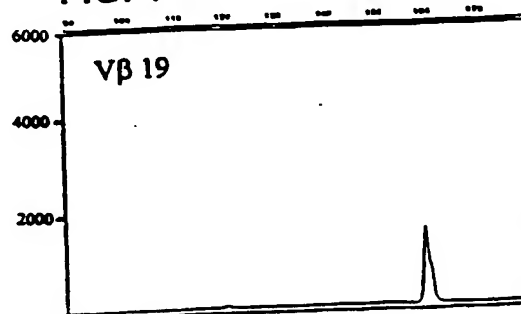


FIG. 14E

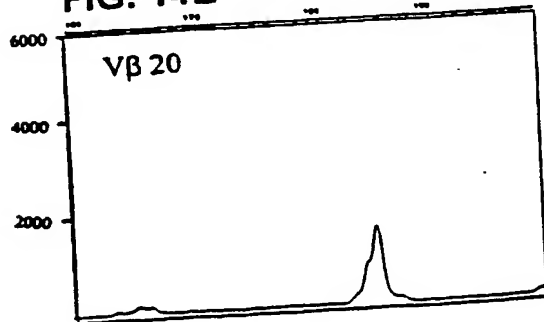
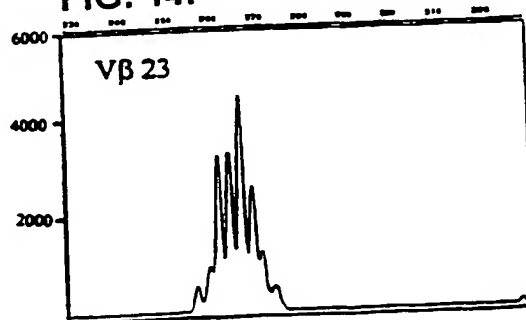


FIG. 14F



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FIG. 15A

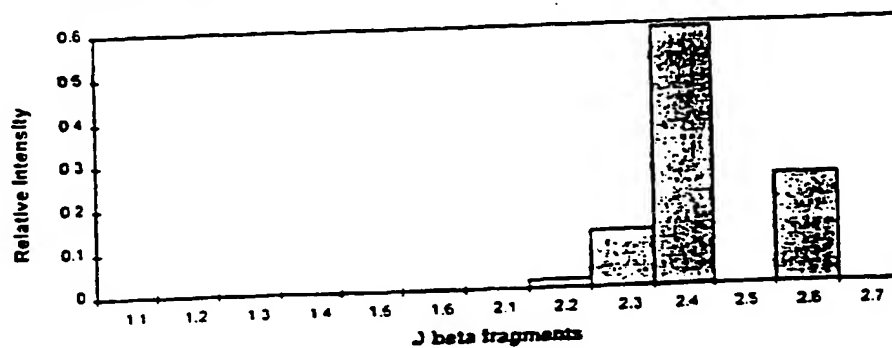


FIG. 15B

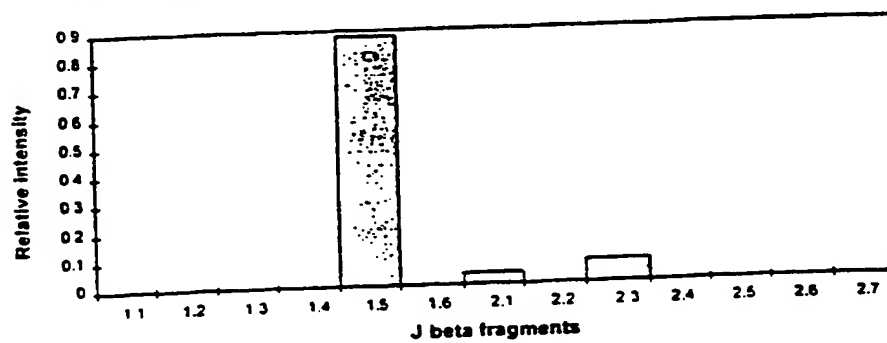
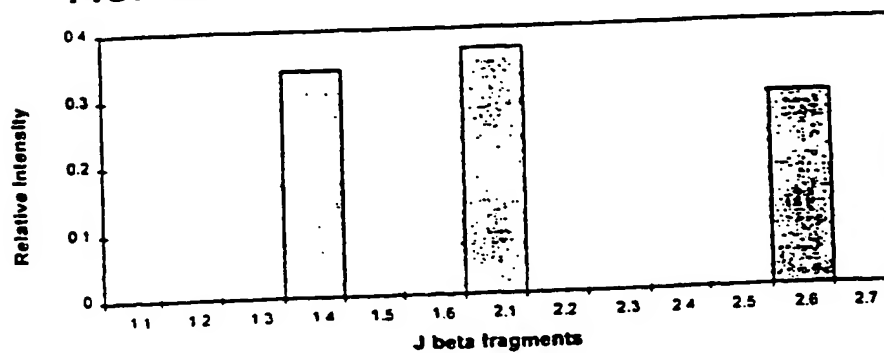
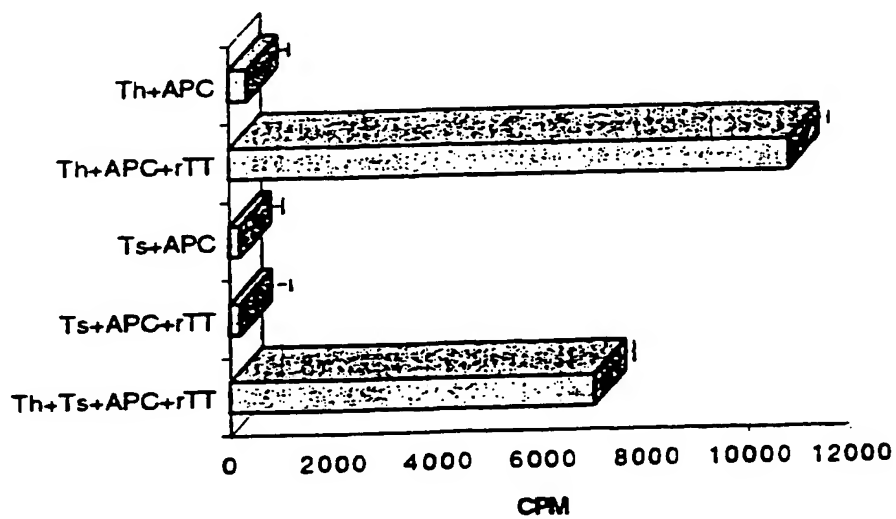


FIG. 15C



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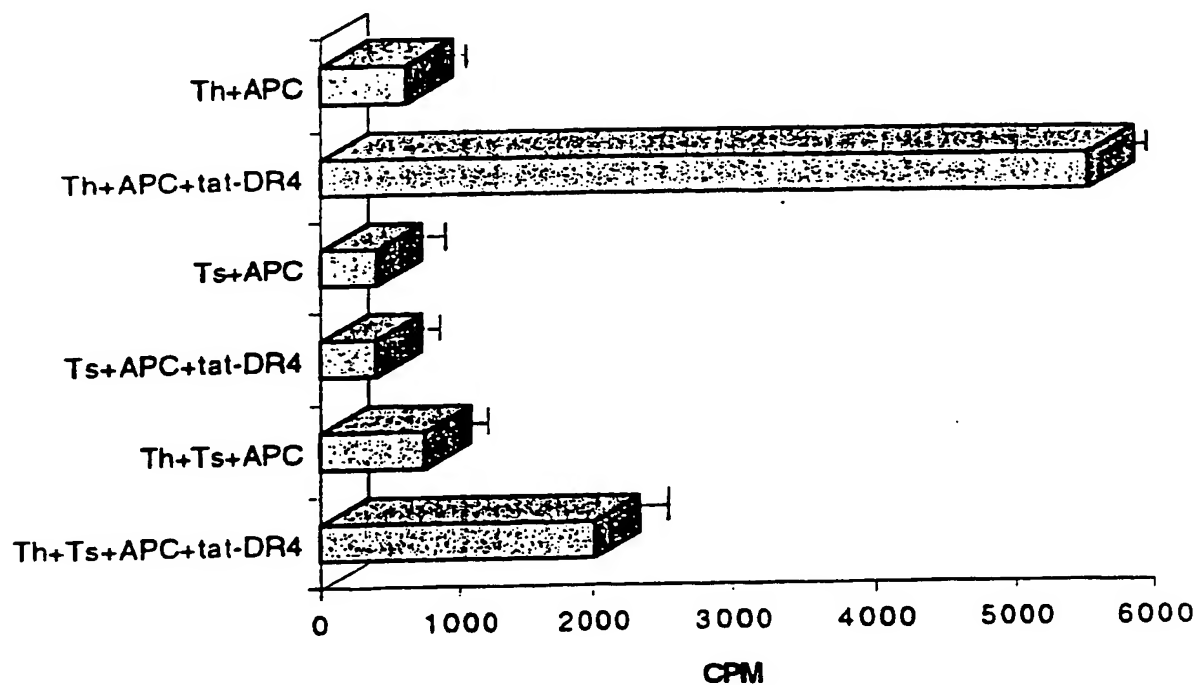
FIG. 16



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FIG. 17



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FIG. 18A

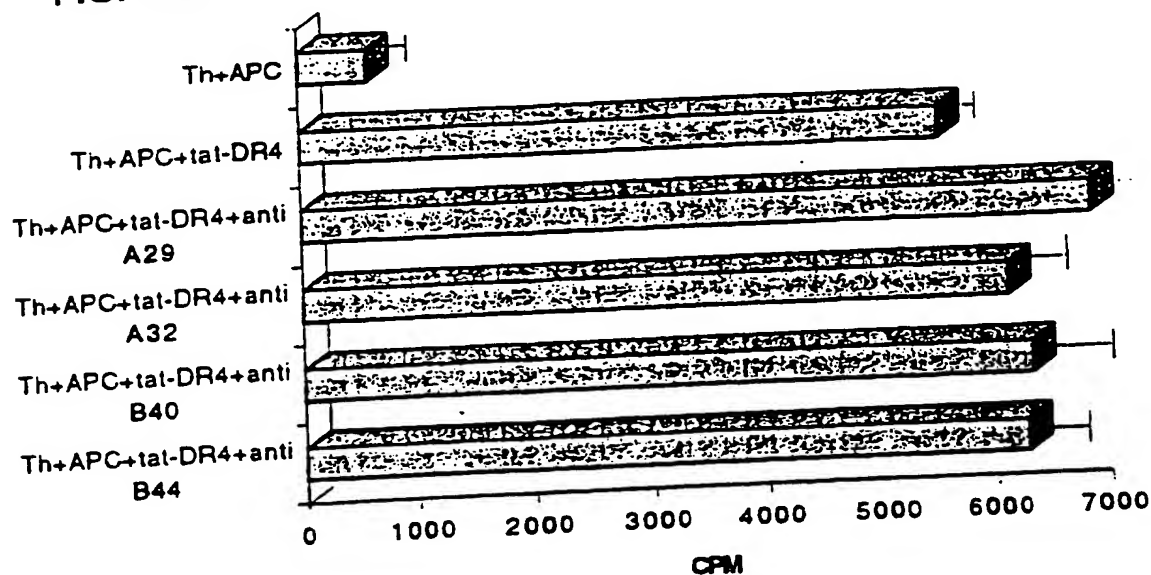
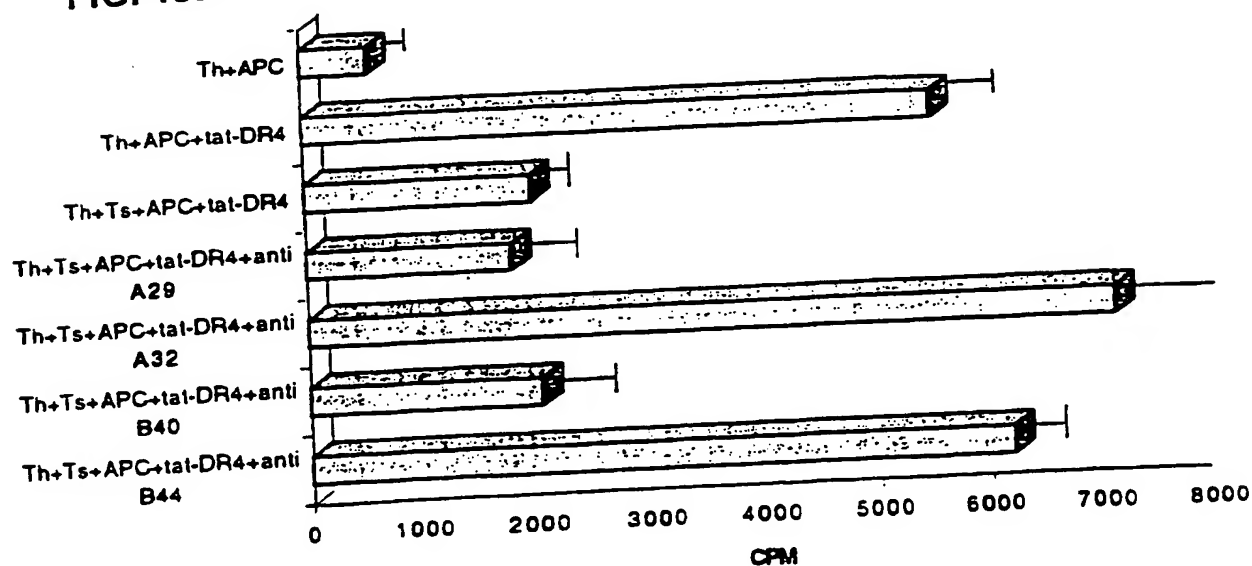


FIG. 18B



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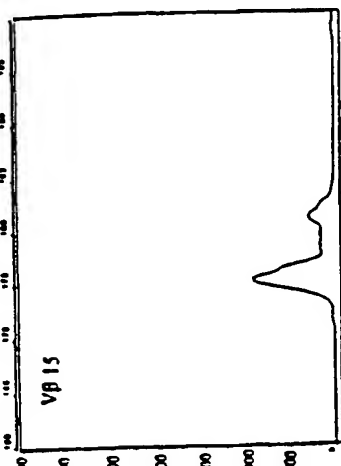


FIG. 19A-4

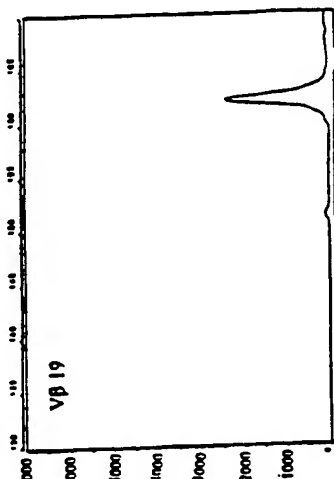


FIG. 19A-5

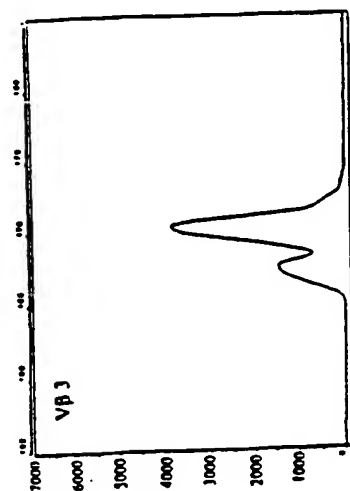


FIG. 19A-1

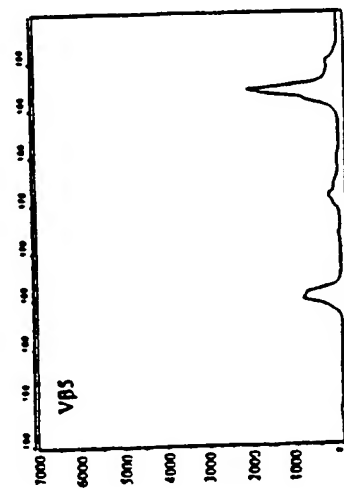


FIG. 19A-2

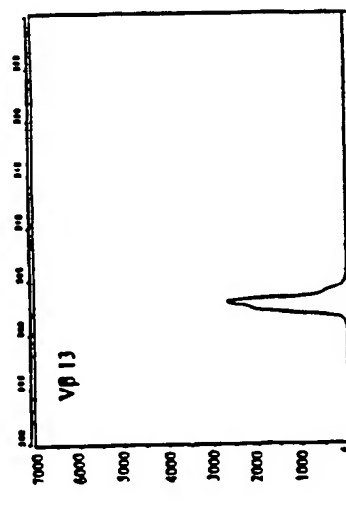


FIG. 19A-3

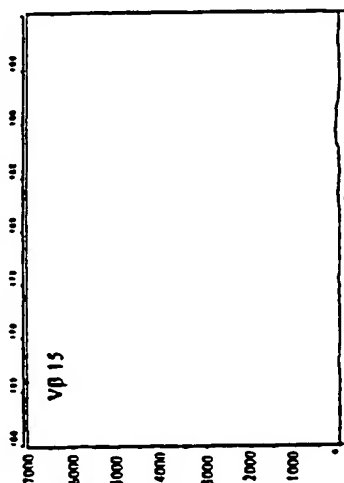


FIG. 19B-4

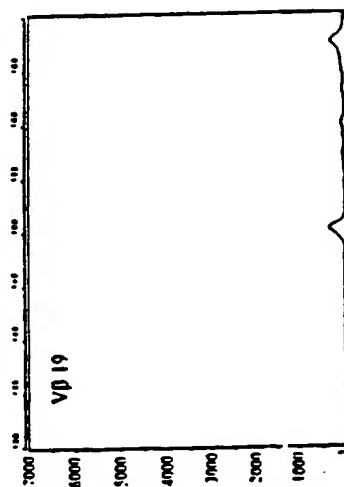


FIG. 19B-5

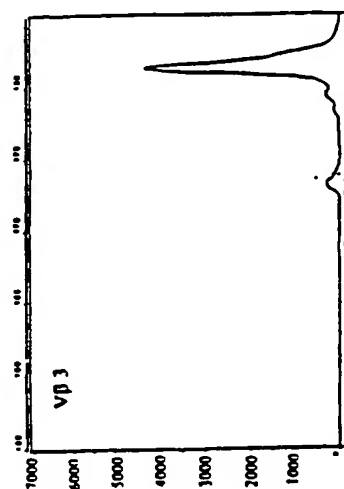


FIG. 19B-1

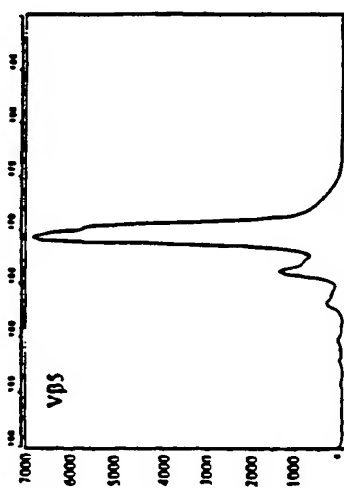


FIG. 19B-2

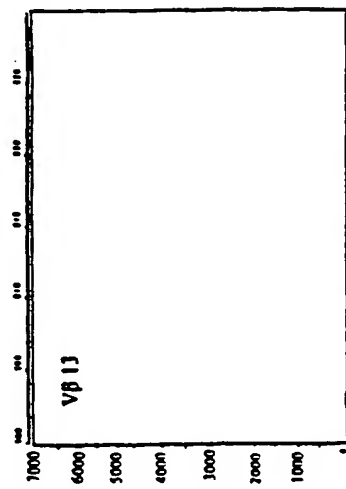


FIG. 19B-3

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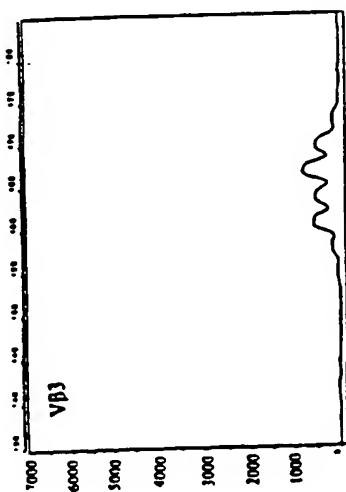


FIG. 19C-4

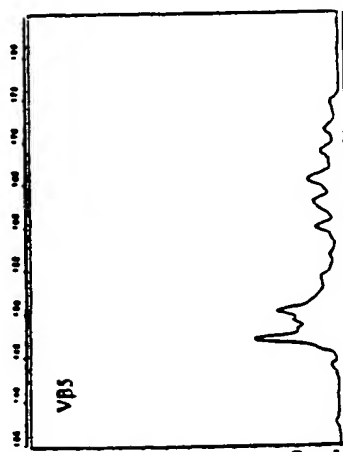
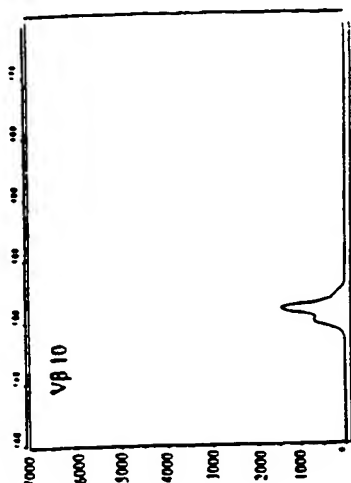


FIG. 19C-2

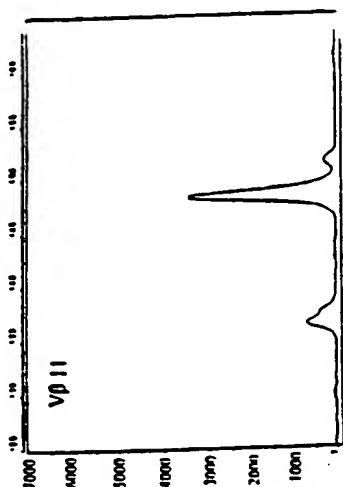


FIG. 19C-5

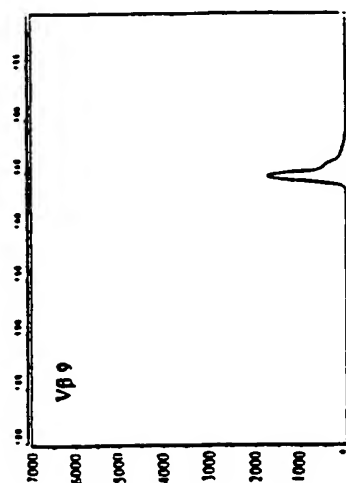


FIG. 19C-3

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FIG. 20A

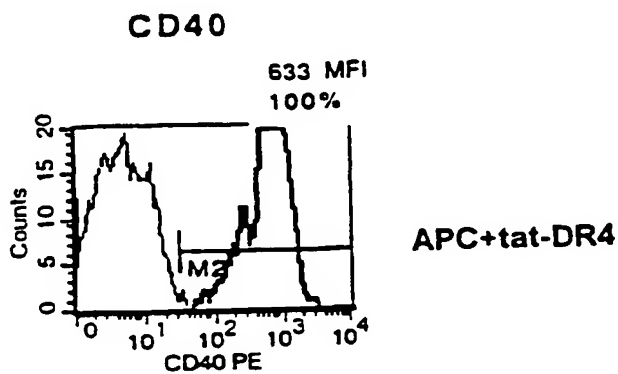


FIG. 20B

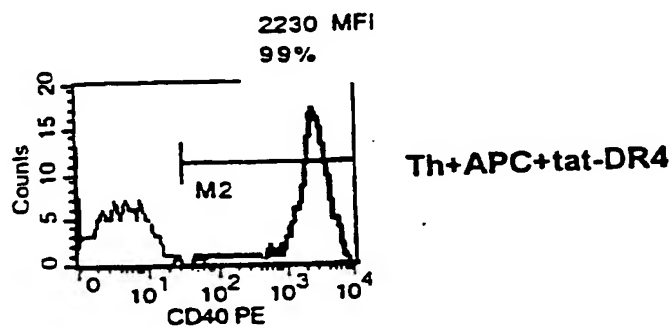


FIG. 20C

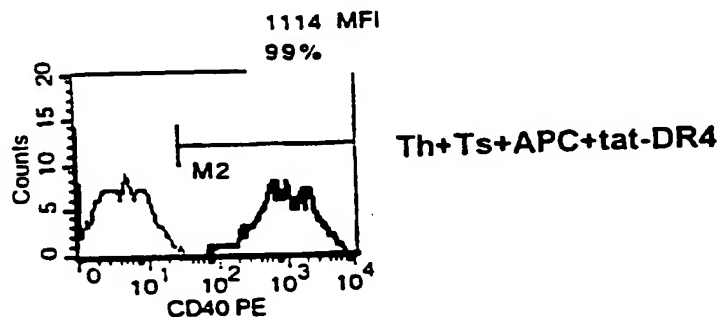
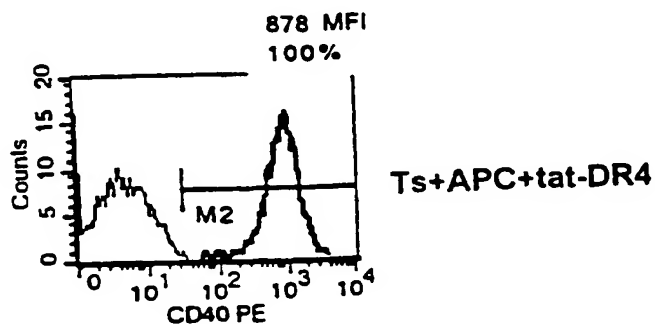


FIG. 20D



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CD80

FIG. 20E

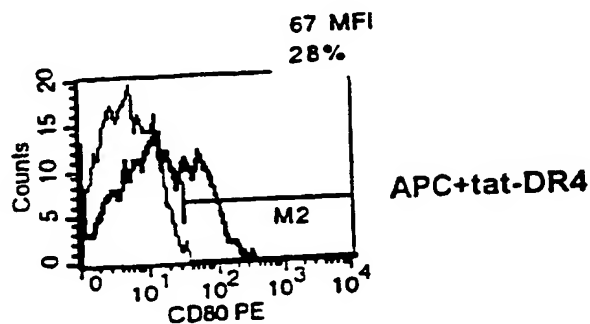


FIG. 20F

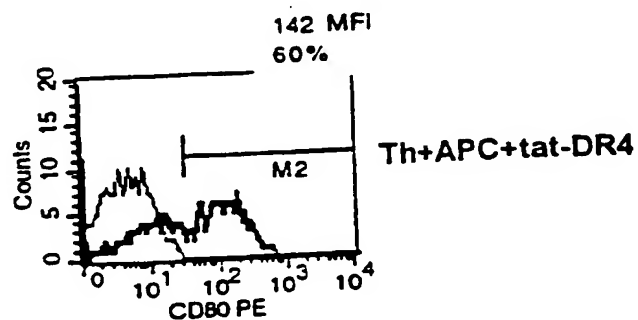


FIG. 20G

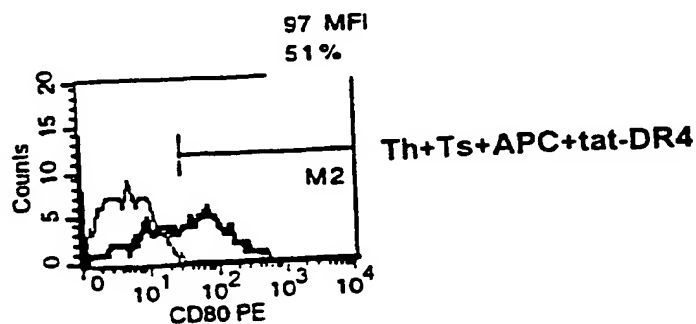
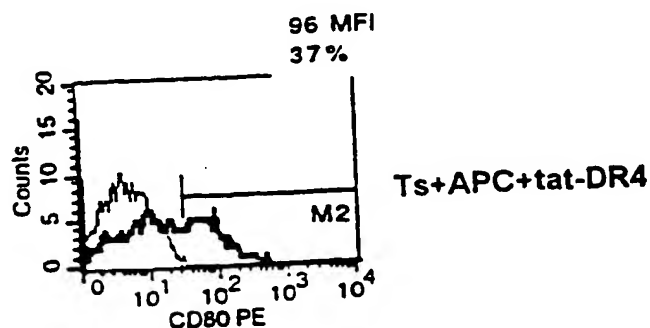


FIG. 20H

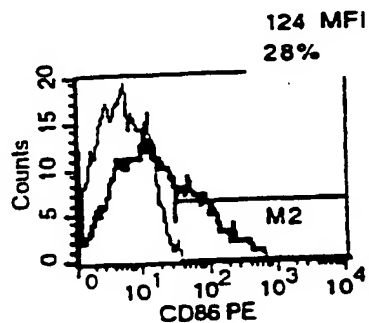


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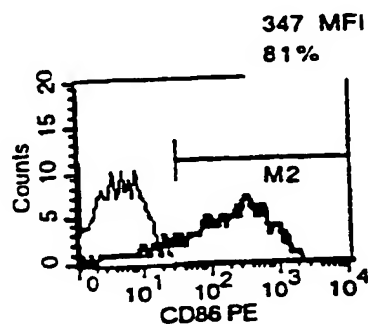
CD86

FIG. 20I



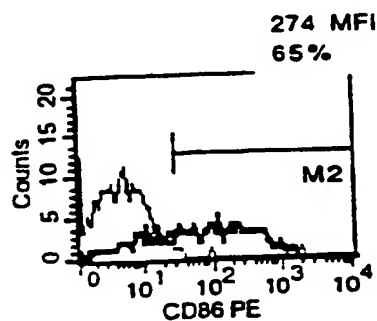
APC+tat-DR4

FIG. 20J



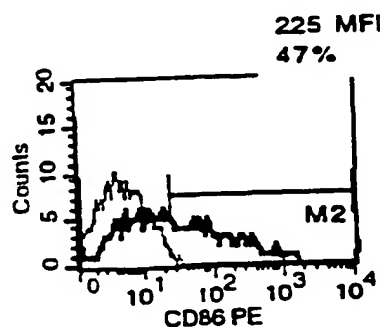
Th+APC+tat-DR4

FIG. 20K



Th+Ts+APC+tat-DR4

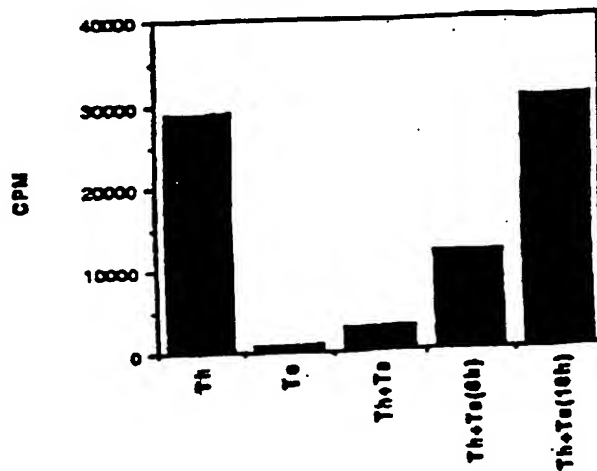
FIG. 20L

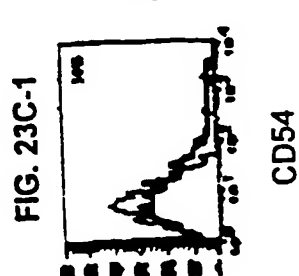
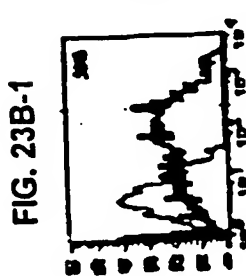
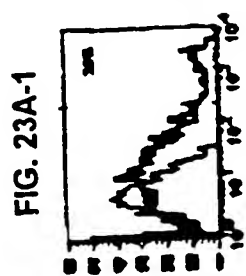
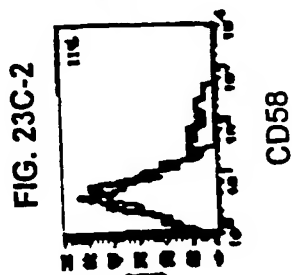
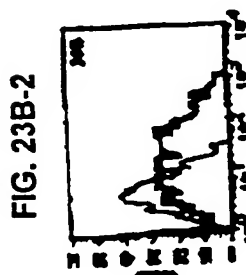
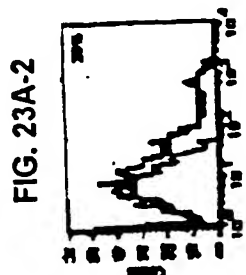
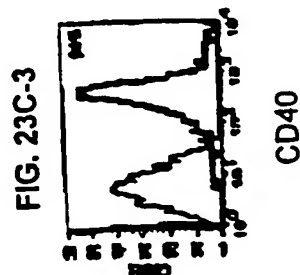
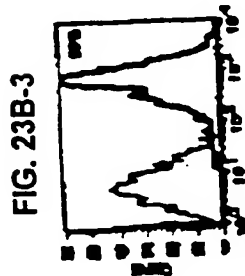
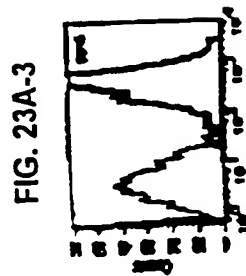
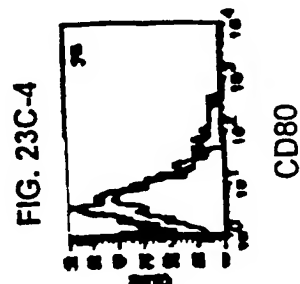
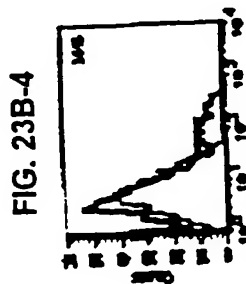
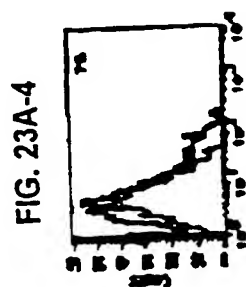
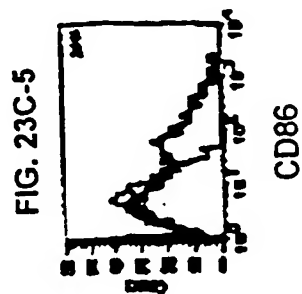
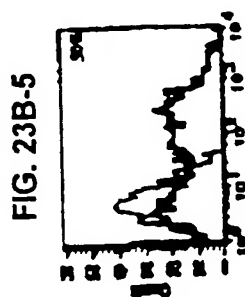
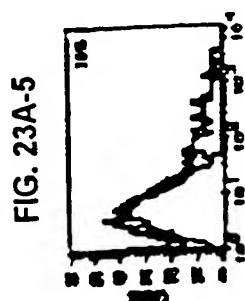


Ts+APC+tat-DR4

205450-229500

Compound	% Inhibition of CBADH activity
DMSO	0
1000 μ g	~95
100 μ g	~85
10 μ g	~15
1000 μ g	~95





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FIG. 23D-5



FIG. 23E-5



CD86

FIG. 23D-4



FIG. 23E-4



CD80

FIG. 23D-3

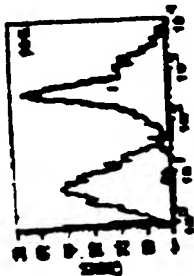
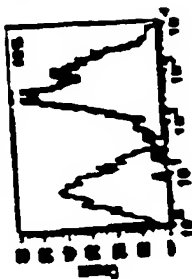


FIG. 23E-3



CD40

FIG. 23D-2



FIG. 23E-2



CD58

FIG. 23D-1



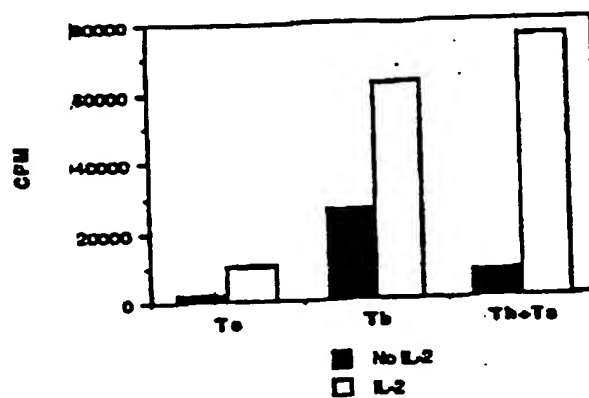
FIG. 23E-1



CD54

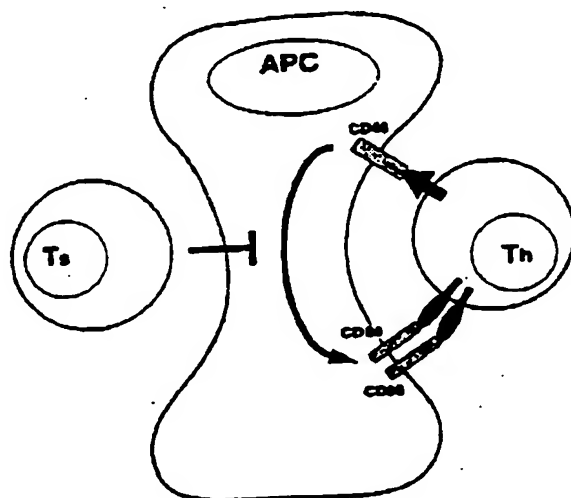
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FIG. 24



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FIG. 25



10018677.051500

FIG. 26

HLA A, B and DR Antigen Values and Split Equivalences

A LOCUS	EQUIVALENT	B LOCUS	EQUIVALENT	DR LOCUS	EQUIVALENT
1	1	6	6	1	1
2	2	7	7	2	2,15,16
3	3	8	8	3	3,17,18
9	9	12	12	4	4
10	10,66	13	13	5	5,11,12
11	11	14	14,64,65	6	6,13,14
19	19,74	15	15,75,76,77	7	7
23	23	16	16	8	8
24	24	17	17,58	9	9
25	25	18	18	10	10
26	26	21	21	11	11,5
28	28,68,69	22	22,54,55,56	12	12,5
29	29	27	27	13	13,5
30	30	35	35	14	14,5
31	31	36	36	15	15,2
32	32	37	37	16	16,2
33	33	38	38	17	17,3
34	34	39	39	18	18,3
36	36	40	40,61	61	61
43	43	41	41	62	62
66	66,10	42	42	63	63
68	68,28	44	44	- 103	103
69	69,28	45	45	- 1403	1403
74	74,19	46	46	- 1404	1404
80	80	47	47	- 99	99
- 203	203	48	48		
- 210	210	49	49		
- 2403	2403	60	60		
- 99	99	61	61		
		62	62		
		63	63		
		64	64,22		
		65	65,22		
		66	66,22		
		67	67		
		68	68,17		
		69	69		
		70	70		
		71	71,40		
		72	72		
		73	73		
		74	74,15		
		75	75,15		
		76	76,15		
		77	77,15		
		- 703	703		
		- 3901	3901		
		- 3902	3902		
		- 4005	4005		
		- 5102	5102		
		- 5103	5103		
		- 7801	7801		
		- 8101	8101		
		- 99	99		

- Code 99 means not tested

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FIG. 27A

DRB Protein Sequences - 20th March 1998 - SGE Marsh ANRI

1 10 20 30 40 50 60 70 80 90 100

DRB1*0101
GDTRPRFLWQLKFECHFFNGTERVRLLERCIYNQEE SVRFDSDVGEYRAVTELGRPDAEYWNSQK
DLLEQRRAAVDTYCRHNYGVGESFTVQRRVEPKVTYV_____AV_____

DRB1*01021 _____

DRB1*01022 *****

AV*****

DRB1*0103 _____I-DE_____

DRB1*0104 _____N_____V_____

DRB1*15011 _____P-R_____F-D-YF_____F_____I-A_____V_____Q_____

DRB1*15012 *****P-R_____F-D-YF_____F_____I-A_____V_____

DRB1*15021 _____P-R_____F-D-YF_____F_____I-A_____Q_____

DRB1*15022 *****F-D-YF_____F_____I-A_____

DRB1*15023 *****P-R_____F-D-YF_____F_____I-A_____

DRB1*1503 _____P-R_____F-D-HF_____F_____I-A_____V_____Q_____

DRB1*1504 *****P-R_____F-D-YF_____F_____F-A_____V_____

DRB1*1505 *****P-R_____F-D-YF_____F_____A_____V_____

DRB1*1506 *****P-R_____F-D-YF_____F-A_____I-A_____V_____

DRB1*16011 _____P-R_____F-D-YF_____F-D_____Q_____

DRB1*16012 *****P-R_____F-D-YF_____F-D_____

DRB1*16021 _____P-R_____F-D-YF_____D_____Q_____

DRB1*16022 *****P-R_____F-D-YF_____D_____

DRB1*1603 _____P-R_____F-D-YF_____F-D-A_____Q_____

DRB1*1604 *****P-R_____F-D-YF_____F-D-L_____

DRB1*1605 *****P-R_____F-D-YF_____I-D_____

DRB1*1607 *****P-R_____FPD-YF_____I-D_____

DRB1*1608 *****P-R_____F-D-YF-N_____F-D_____

DRB1*03011 _____EYSTS_____Y-D-YFH-N_____F_____K-GR-N_____V_____

-H-

DRB1*03012 *****EYSTS_____Y-D-YFH-N_____F_____K-GR-N_____V_____

-*****

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FIG. 27B

DRB1*03021 ———EYSTS———F—YFH—N———K-GR-N———
 H——
 DRB1*03022 ———EYSTS———F—YFH—N———K-GR-N———
 H——**
 DRB1*0303 *****YSTS———F—YFH—N———K-GR-N———V——
 —————
 DRB1*0304 *****EYSTS———Y-D-YFH———F———K-GR-N———V-

 DRB1*0305 *****EYSTS———Y-D-YFH—N———F———K-GR-N———
 —————
 DRB1*0306 *****EYSTS———Y-D-YFH—N———K-GR-N———V——
 —————
 DRB1*0307 ———EYSTS———F-D-YFH—N———F———K-GR-N———V——
 -H——
 DRB1*0308 ———EYSTS———Y-D-YFH—N———F———E———K-GR-N———V——
 -H——
 DRB1*0309 *****EYSTS———Y-D-YFH-R-N———F———K-GR-N———
 —————
 DRB1*0310 ———EYSTS———Y-D-YFH—N———F———A-H———K-GR-N———V——
 -H——
 DRB1*0311 *****EYSTS———Y-D-YFH—N———F———K-GQ-N———V——
 —————
 DRB1*04011 ———E-V-H———F-D-YF-H—Y———K———Y-
 E——
 DRB1*04012 *****E-V-H———F-D-YF-H—Y———K———

 DRB1*0402 ———E-V-H———F-D-YF-H—Y———I-DE———V——

 DRB1*0403 ———E-V-H———F-D-YF-H—Y———E———V———Y-
 E——
 DRB1*0404 ———E-V-H———F-D-YF-H—Y———V———Y-
 E——
 DRB1*04051 ———E-V-H———F-D-YF-H—Y———S———

 DRB1*04052 *****E-V-H———F-D-YF-H—Y———S———

 DRB1*0406 ———E-V-H———F-D-YF-H———E———V———Y-
 E——
 DRB1*0407 ———E-V-H———F-D-YF-H—Y———E———

 DRB1*0408 *****E-V-H———F-D-YF-H—Y———

 DRB1*0409 *****F-D-YF-H—Y———S———K———

 DRB1*0410 *****E-V-H———F-D-YF-H—Y———S———V——

 DRB1*0411 ———E-V-H———F-D-YF-H—Y———S———E———V———Y-
 E——
 DRB1*0412 *****E-V-H———F-D-YF-H—Y———S———I-D-L———V——

 DRB1*0413 *****H———F-D-YF-H—Y———K———V——

 DRB1*0414 *****F-D-YF-H—Y———I-DE———

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FIG. 27C

DRB1*0415 *****E-V-H-----F-D-YF-H-Y-----E-----F-D-----V-

DRB1*0416 *****-----F-D-YF-H-Y-----Q-----K-----

DRB1*0417 *****-----F-D-YF-H-Y-----S-----E-----

DRB1*0418 *****-----F-D-YF-H-Y-----I-D-L-----V-----

DRB1*0419 *****H-----F-D-YF-H-----

DRB1*0420 *****-----F-D-YF-H-----E-----

DRB1*0421 *****E-V-H-----F-D-YF-H-----K-----

DRB1*0422 *****E-V-H-----F-D-YF-H-Y-----K-GR-N-----V-----

DRB1*0423 *****E-V-H-----F-D-YF-H-Y-----V-R-----

DRB1*0424 *****E-V-H-----F-D-YF-H-Y-----S-----R-----

DRB1*0425 *****E-V-H-----F-D-YF-H-Y-----F-D-L-----V-----

DRB1*0426 *****E-V-H-----F-D-YF-H-Y-----T-----K-----

DRB1*0427 *****E-V-H-----F-D-YF-H-Y-----E-----AV-----

DRB1*11011 -----EYSTS-----F-D-YF-----Y-----F-----E-----F-D-----
H-----
DRB1*11012 -----EYSTS-----F-D-YF-----Y-----F-----E-----F-D-----
H-----
DRB1*11013 *****EYSTS-----F-D-YF-----Y-----F-----E-----F-D-----

DRB1*1102 -----EYSTS-----F-D-YF-----Y-----F-----E-----I-DE-----V-----
H-----
DRB1*1103 -----EYSTS-----F-D-YF-----Y-----F-----E-----F-DE-----V-----
H-----
DRB1*11041 -----EYSTS-----F-D-YF-----Y-----F-----E-----F-D-----V-----

DRB1*11042 -----EYSTS-----F-D-YF-----Y-----F-----E-----F-D-----V-----
H-----
DRB1*1105 *****EYSTG-----F-D-YF-----Y-----F-----E-----F-D-----

DRB1*1106 *****EYSTS-----F-D-YF-----Y-----F-----E-----F-D-----AV-----

DRB1*1107 *****EYSTS-----F-D-YF-----Y-----F-----E-----K-GR-N-----V-----

DRB1*11081 *****S-----F-D-YF-----Y-----F-----E-----D-----

DRB1*11082 *****S-----F-D-YF-----Y-----F-----E-----D-----

DRB1*1109 *****-----F-D-YFH-----N-----F-----E-----F-D-----

DRB1*1110 *****-----F-D-YFH-----F-----F-----E-----F-D-----

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FIG. 27D

DRB1*1111 *****S-----F-D-YF---Y-----F-----E-----F-DE-----

DRB1*1112 *****-----F-D-YF---F-----F-----E-----F-D-----

DRB1*1113 -----EYSTS-----F-D-YFH---F-----F-----E-----R-----V-----

DRB1*1114 -----EYSTS-----F-D-YF---Y-----F-----E-----I-DE-----

DRB1*1115 -----EYSTS-----F-D-YF---DL-----F-----E-----F-D-----
H-----
DRB1*1116 *****-EYSTS-----F-D-YFH---N-----F-----E-----I-DE-----V-----

DRB1*1117 -----EYSTS-----F-D-YFH---F-----E-----R-E-----V-----
H-----
DRB1*1118 *****-EYSTS-----F-D-YF---Y-----F-----E-----I-D-----V-----

DRB1*1119 *****-EYSTS-----F-D-YF---Y-----F-----E-----I-D-----

DRB1*1120 *****-EYSTS-----F-D-YFH---N-----F-----E-----I-DE-----

DRB1*1121 *****-EYSTS-----F-D-YF---Y-----F-----E-----I-DE-----AV-

DRB1*1122 *****-E-V-H-----F-D-YF---Y-----F-----E-----F-D-----

DRB1*1123 *****-EYSTS-----F-D-YF---Y-----F-----E-----F-D-L-----

DRB1*1124 *****-EYSTS-----F-D-YF---D-----F-----E-----F-D-----

DRB1*1125 *****-EYSTS-----F-D-YF---Y-----F-----E-----F-D-L-----V-----

DRB1*1126 *****-EYSTS-----F-D-YF---Y-----F-----E-----

DRB1*1127 *****-EYSTS-----F-D-YF---Y-----F-----E-----F-D-N-----

DRB1*1128 *****-EYSTS-----F-D-YF---N-----F-----E-----F-D-----

DRB1*1129 *****-EYSTS-----F-D-YF-----F-----E-----F-D-----

DRB1*1130 *****-EL-S-----F-D-YF---Y-----F-----E-----F-D-----

DRB1*1131 -----EYSTS-----F-D-YF---Y-----F-----E-H---I-D-----
H-----
DRB1*1201 -----EYSTG-Y-----HFH---LL-----F-----V-S---I-D-----AV-----
-H-----
DRB1*12021 *****-EYSTG-Y-----HFH---LL-----F-----V-S---F-D-----
AV*****
DRB1*12022 *****-EYSTG-Y-----HFH---LL-----F-----V-S---F-D-----AV-

DRB1*12032 *****-EYSTG-Y-----HFH---LL-----F-----V-S---I-D-----V-----

DRB1*1204 *****-EYSTG-Y-----HFH---LL-----F-----E-----I-D-----
AV*****
DRB1*1205 *****-EYSTG-Y-----HFH---FL-----F-----V-S---I-D-----AV-----

FIG. 27E

DRB1*1301 ———EYSTS—————F-D-YFH—N———F—————I-DE—————V———
H———
DRB1*1302 ———EYSTS—————F-D-YFH—N———F—————I-DE—————
H———
DRB1*13031 ———EYSTS—————F-D-YF—Y—————S—————I-DK—————
H———*
DRB1*13032 *****-EYSTS—————F-D-YF—Y—————S—————I-DK—————

DRB1*1304 ———EYSTS—————F-D-YF—Y———F———S—————I-DE—————V———
H———*
DRB1*1305 *****-EYSTS—————F-D-YFH—N———F—————F-D—————

DRB1*1306 *****-EYSTS—————F-D-YFH—N———F—————I-D—————V———

DRB1*13071 *****-EYSTS—————F-D-YF—Y—————F-D—————

DRB1*1308 *****-EYSTS—————F-D-YFH—F—————I-DE—————V———

DRB1*1309 *****-EYSTS—————F-D-YFH—N———F—————I-A—————V———

DRB1*1310 *****-EYSTS—————F-D-YFH—N———F—————I-DK—————V———

DRB1*1311 *****-EYSTS—————F-D-YF—Y———F———F-D—————V———

DRB1*1312 *****-EYSTS—————F-D-YF—Y—————S—————I-D—————

DRB1*1313 *****-EYSTS—————F-D-YF—Y—————S—————I-D-L———

DRB1*1314 *****-EYSTS—————F-D-YF—Y———F———F-D—————

DRB1*1315 *****-EYSTS—————F—YFH—N———F—————I-DE—————V———

DRB1*1316 *****-EYSTS—————F-D-YFH—N———F—————I-DE—————D———

DRB1*1317 ———EYSTG-Y———F-D-YF—Y———F—————I-DE—————V———
H———
DRB1*1318 *****-EYSTS—————F-D-YFH—N———F—————F-D-L———V———

DRB1*1319 ———EYSTS—————F—YFH—F—————I-DE—————V———H———
———
DRB1*1320 *****-EYSTS—————F-D-YFH—N———F—————DE—————V———

DRB1*1321 ———EYSTS—————F-D-YF—Y———F———S—————F-D—————H———
———
DRB1*1322 ****-EYSTS—————F-D-YF—Y———F—————I-DE—————V———

DRB1*1323 *****-EYSTS—————F-D-YF—Y———F—————I-DE—————

DRB1*1324 *****-EYSTS—————F-D-YF—Y———F—————F-DE—————V———

DRB1*1325 *****-EYSTS—————F-D-YF—Y———F—————D—————

DRB1*1326 *****-EYSTS—————F—YFH—N—————F-D—————

FIG. 27F

DRB1*1327 *****-EYSTS-----Y-D-YFH-N-----F-----I-DE-----V-----

DRB1*1328 *****-EYSTS-----F-D-YFH-N-----F-----I-DE-----R-V-----

DRB1*1329 *****-EYSTS-----F-D-YFH-N-----F-----DE-----

DRB1*1330 *****-EYSTS-----F-D-YF-Y-----F-----S-----I-D-----

DRB1*1331 *****-EYSTS-----F-D-YFH-N-----F-----V-----I-DE-----

DRB1*1332 *****-EYSTS-----F-D-YFH-N-----S-----I-DE-----V-----

DRB1*1333 *****-EYSTS-----F-D-YF-Y-----S-----I-DK-N-----

DRB1*1401 -----EYSTS-----F-D-YFH-F-----A-H-----R-E-----V-----

DRB1*1402 -----EYSTS-----F-YFH-N-----

DRB1*1403 -----EYSTS-----F-YFH-N-----D-L-----

DRB1*1404 *****-EYSTG-Y-----F-D-YFH-F-----A-H-----R-E-----V-----

DRB1*1405 *****-EYSTS-Q-----F-D-YFH-F-----R-E-----V-----

DRB1*1406 *****-EYSTS-----F-YFH-N-----V-----

DRB1*1407 *****EYSTS-----F-D-YFH-F-----A-H-----R-E-----

DRB1*1408 *****-EYSTS-----F-D-YFH-F-----H-----R-E-----V-----

DRB1*1409 *****-EYSTS-----F-D-YFH-N-----

DRB1*1410 *****-E-V-H-----F-D-YFH-F-----A-H-----R-E-----V-----

DRB1*1411 *****EYSTG-Y-----F-D-YFH-F-----E-----R-E-----
V*****
DRB1*1412 *****S-----F-YFH-N-----D-L-----
V*****
DRB1*1413 *****EYSTS-----F-YFH-N-----S-----

DRB1*1414 *****-EYSTS-----F-D-YFH-F-----R-E-----

DRB1*1415 *****STG-Y-----F-D-YFH-F-----F-D-L-----V-----

DRB1*1416 *****EYSTS-----F-D-YFH-F-----A-H-----I-DE-----V-----

DRB1*1417 *****-EYSTS-----F-D-YFH-N-----F-----V-----

DRB1*1418 *****EYSTS-----F-YFH-N-----R-E-----V-----

DRB1*1419 -----EYSTS-----F-YFH-N-----K-----

DRB1*1420 *****EYSTS-----F-YFH-F-----V-----

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FIG. 27G

DRB1*1421 *****-EYSTS-----F-D-YFH-N-----F-----K-----V-

DRB1*1422 *****-EYSTS-----F-D-YFH-F-----A-H-----F-D-----

DRB1*1423 *****-EYSTS-----F-D-YFH-F-----R-E-----V-----

DRB1*1424 *****-EYSTS-----F-YFH-N-----I-A-----
H-----
DRB1*1425 *****EYSTS-----F-D-YF-Y-----A-H-----F-D-----

DRB1*1426 *****-EYSTS-----QF-D-YFH-F-----A-H-----R-E-----V-----
-*****
DRB1*1427 *****-EYSTS-----F-YFH-N-----F-D-L-----

DRB1*1428 *****-EYSTG-Y-----F-D-YFH-F-----A-H-----R-E-----
AV*****
DRB1*1429 *****-EYSTS-----F-YFH-N-----AV-----

DRB1*1430 *****-EYSTS-----F-D-YFH-N-----F-----

DRB1*1431 *****-EYSTG-Y-----F-D-YFH-F-----A-H-----R-----V-----

DRB1*0701 -Q-G-YK-----QF-LF-F-----V-S-I-D-GQ-V-----
H-E-----
DRB1*0703 *****-G-YK-----QF-SLF-F-----V-S-I-D-GQ-V-----

DRB1*0801 -----EYSTG-Y-----F-D-YF-Y-----S-----F-D-L-----

DRB1*08021 -----EYSTG-Y-----F-D-YF-Y-----F-D-L-----
H-----
DRB1*08022 *****-EYSTG-Y-----F-D-YF-Y-----F-D-L-----
-H-----
DRB1*08032 -----EYSTG-Y-----F-D-YF-Y-----S-----I-D-L-----
H-----
DRB1*08041 -----EYSTG-Y-----F-D-YF-Y-----F-D-L-----V-----
H-----*
DRB1*08042 *****-----F-D-YF-Y-----F-D-L-----V-----
-*****
DRB1*08043 *****-EYSTG-Y-----F-D-YF-Y-----F-D-L-----V-----
-*****
DRB1*0805 *****-EYSTG-Y-----F-D-YF-Y-----S-----F-D-----

DRB1*0806 *****-EYSTG-Y-----F-D-YF-Y-----S-----F-D-L-----V-----
-*****
DRB1*0807 *****-EYSTG-Y-----F-D-YF-Y-----V-----F-D-L-----

DRB1*0808 *****-EYSTG-Y-----F-D-YF-Y-----A-H-----F-D-L-----

DRB1*0809 *****-Y-----F-D-YFH-F-----F-D-L-----

DRB1*0810 *****-EYSTG-Y-----F-D-YF-Y-----S-----I-D-L-----V-----
-*****
DRB1*0811 *****-EYSTG-Y-----F-D-YF-Y-----A-----F-D-L-----

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FIG. 27H

DRB1*0812 *****-EYSTG-Y-----F-D-YF-Y-----S-----I-D-L-----AV-----

 DRB1*0813 *****-EYSTG-Y-----F-D-YF-Y-----D-L-----

 DRB1*0814 *****-EYSRG-Y-----F-D-YF-Y-----S-----I-D-L-----

 DRB1*0815 *****-EYSTG-Y-----F-D-YF-Y-----H-----I-D-L-----

 DRB1*0816 *****-EYSTG-Y-----F-D-YF-D-----S-----F-D-L-----

 DRB1*0817 *****-EYSTG-Y-----F-D-YF-Y-----F-----S-----F-D-L-----

 DRB1*0818 *****-EYSTG-Y-----F-D-YF-Y-----S-----I-D-----

 DRB1*0819 *****-EYSTG-Y-----F-D-YF-Y-----I-----I-D-L-----

 DRB1*09012 -Q-K-D-----Y-H-G-----N-----V-S-----F-R-E-V-----
 H-E-----
 DRB1*1001 -----EEV-----RVH-YA-Y-----R-----Q-----

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FIG. 29

	1				50
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	VENHVIIQAE	FYLSPDKSGE	FMFDFDGDEI	FHVDMEKRET	VWRLEEFQHF
	51				100
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	-m-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-m-----	-----	-----
Sladra-02012	-----	-----	-m-----	-----	-----
Consensus	ASFEAQGALA	NIADVKNLE	ILIKRSNNTP	NTNVPPEVTV	LSDKPVELGE
	101				150
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	PNILICFIDK	FSPPVVNVTV	LRNGSPVTRG	VSETVFLPRE	DHLFRKFHYL
	151				200
Sladra-0102	-----	-----	-----	-r-----	-----
Sladra-0202	-----	-----	-----	-----	-----
Sladra-0203	-----	-----	-----	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	PFMPSTEDVY	DCQVEHWGLD	KPLLKHWEFE	AQTPLPETTE	NTVCALGLIV
	201		228		
Sladra-0102	-----	-----	-----	-----	-----
Sladra-0202	-----	-----	---h---	-----	-----
Sladra-0203	-----	-----	---h---	-----	-----
Sladra-0101	-----	-----	-----	-----	-----
Sladra-02011	-----	-----	-----	-----	-----
Sladra-02012	-----	-----	-----	-----	-----
Consensus	ALVGIIIGTV	LIIGVVRKGN	ATERRGPL		

Group 01 has a leucine at residue 72 and Group 02 has a methionine.
No other polymorphisms have been found in the alpha 1 domain.

Amino Acid Sequences of SLA DRA Alleles

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FIG. 30

	1		21		41	50
Sladrb-T	--iaq--ffm	g-s-----	-----y-qky	l-----	-----l--f--	
Sladrb-N	-----f-	g-a-----	-----d-y	f--d-y--	-----f-e-	
Sladrb-M	-----f-	g-----	-----q-----	-----y-----	-----	
Sladrb-Z	-----y-	-----	-----	-----l--	-----	
Sladrb-AD	-----	-----	-----q-n	c-----y--	-----	
Sladrb-C	--i-----q	-----	-----l--d-y	f-----	-----f--	
Sladrb-WX	-----	v-h-r-----	-----y-lky	l-----	-----l--e-	
Sladrb-Y	--i-----ffm	g-s-----	-----	-----	-----	
Consensus	RDTPPHFLHL	LKFECHFFNG	TERVRLERQ	YYNGEEFVRF	DSDVGEYRAV	
	51	61	81		100	
Sladrb-T	-----	-----m--	k--v-----	-----	-----r--	
Sladrb-N	--f-----	-----fm--	k-----v--	-----e-e--	-----r--	
Sladrb-M	-----n	y-----	-----	-----ts--	-----r--	
Sladrb-Z	-----v-d	-----	-----	-----ts--	-----	
Sladrb-AD	-----d	-----	-----a-----	-----	-----	
Sladrb-C	-----	r-----	-----s--s--i	-----	-----	
Sladrb-WX	-----	-----i--d	-----ek-----	-----gvs-s--	-----	
Sladrb-Y	-----	-----	-----	-----	-----	
Consensus	TELGRPDQAY	WNSQKDLLEQ	RRAEVDTYCR	HNRYILDFTL	VPRAEPTVT	
	101				150	
Sladrb-T	-----	-----	-----	-----	-----	
Sladrb-N	-----	-----	-----	-----	-----	
Sladrb-M	-----	-----	-----	-----	-----	
Sladrb-Z	-----	-----	-----	-----	-----	
Sladrb-AD	-----	-----	-----	-----	-----	
Sladrb-C	-----	-----	-----	-----	-----	
Sladrb-WX	-----	-----	-----	-----	-----	
Sladrb-Y	-----	-----	-----	-----	-----	
Consensus	VYPAKTPQLQ	HBNLLVCSVT	GFYPGHVEVR	WFRNGQEEAA	GVVSTGLIFN	
	151				200	
Sladrb-T	-----	-----	-----t-----	-----	-----	
Sladrb-N	-----	-----	-----	-----	-----	
Sladrb-M	-----	-----	-----	-----	-----	
Sladrb-Z	-----	-----	-----	-----	-----	
Sladrb-AD	-----	-----	-----	-----	-----	
Sladrb-C	-----	-----	-----	-----	-----	
Sladrb-WX	-----	-----	-----	-----	-----	
Sladrb-Y	-----	-----	-----	-----	-----	
Consensus	GDWTFQTMVM	LETVPQSGEV	YSCRVEHPSL	TSPVTVEWRA	RSESAQGKMM	
	201			237		
Sladrb-T	--v-----	-----	-----	-----	-----	
Sladrb-N	-----	-----	-----	-----	-----	
Sladrb-M	-----	-----	-----	-----	-----	
Sladrb-Z	--v-----	-----	-----	-----	-----	
Sladrb-AD	-----	-----	-----	-----	-----	
Sladrb-C	--v-----	-----	-----	-----	-----	
Sladrb-WX	-----	-----	-----	-----	-----	
Sladrb-Y	--v-----	-----	-----	-----	-----	
Consensus	SGIGGFVLGL	LFVAVGLFIY	FKNQKGRPAL	QPTGLLS		

Amino Acid Sequence of SLA-DRB Alleles

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FIG. 31

						50
Sladqa-02021	-----	-----	-----	-----	g	-----
Sladqa-02022	-----	-----	-----	-----	g	-----
Sladqa-02023	-----	-----	-----	-----	g	-----
Sladqa-0201	-----	-----	-----	-----	-----	-----
Sladqa-0101	-----	-----	-r-----	-----	q	-----
Sladqa-0103	-----	-----	-r-f-----	-----	q	-----
Sladqa-0102	-----	-----	-----	-----	-----	-----
Consensus	EDIAADHVAS	YGLNVYQSYG	PSGYTTFEFD	GDEEFYVDLE	KKETVWQLPL	
						100
Sladqa-02021	-----r-----	-----	-----	-----	-----	-----
Sladqa-02022	-----r-----	-----	-----	-----	-----	-----
Sladqa-02023	-----r-----	-----	-----	-----	-----	-----
Sladqa-0201	-----	-----	-----	-----	-----	-----
Sladqa-0101	-----e-----	-----l-----	-----vt-----	-----k-----	-----s-----	-----
Sladqa-0103	-----e-----	-----l-----	-----vt-----	-----k-----	-----s-----	-----
Sladqa-0102	-----e-----	-----l-----	-----vt-----	-----	-----	-----
Consensus	FSKFTSFDPO	GALRNIATAK	HNLNLIKRS	NNTAAVNQVP	EVTVPKSPV	
						150
Sladqa-02021	-----	-----	-----	-----	-----	-----
Sladqa-02022	-----	-----	-----	-----	-----	-----
Sladqa-02023	-----	-----	-----	-----	-----	-----
Sladqa-0201	-----	-----	-----	-----	-----	-----
Sladqa-0101	i-----	-----g-----	-----	-----	-----k-----	-----
Sladqa-0103	i-----	-----s-----	-----	-----	-----k-----	-----
Sladqa-0102	i-----	-----s-----	-----	-----	-----k-----	-----
Consensus	MLGQPNTLIC	HVDNIFPPVI	NITWLKNGHS	VTEGFSETSF	LSKNDHSFLK	
						200
Sladqa-02021	-----	-----	-----	-----	-----	-----
Sladqa-02022	-----	-----	-----	-----	-----	-----
Sladqa-02023	-----	-----	-----	-----	-----	-----
Sladqa-0201	-----	-----	-----	-----	-----	-----
Sladqa-0101	-----	-----	-----	-----	-----	-----
Sladqa-0103	-----	-----	-----	-----	-----	-----
Sladqa-0102	-----	-----	-----	-----	-----	-----
Consensus	ISYLTFLPSD	DDFYDCKVEH	WGLDKPILKH	WEPEIPAPMS	ELTETVVCAL	
						232
Sladqa-02021	-----	-----	-----	-----	-----	-----
Sladqa-02022	-----	-----	-----	-----	-----	-----
Sladqa-02023	-----	-----	-----	-----	-----	-----
Sladqa-0201	-----	-----	-----	-----	-----	-----
Sladqa-0101	-----	-----	-----	-----	-----	-----
Sladqa-0103	-----	-----	-----	-----	-----	-----
Sladqa-0102	-----	-----	-----	-----	-----	-----
Consensus	GLIVGLVGIV	VGTVFIIQGL	RSGGPSRHOG	SL		

Group 01 is 231 amino acids (deletion at 132) and Group 02 is 232 amino acids

Amino Acid Sequences of SLA-DQA Alleles

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FIG. 32

	1					50
Sladqb-D	-----v	---g---y	-----ws-d	-----fl-	-----m-y-	
Sladqb-D2	-----f	---g---y	-----ws-d	-----fl-	-----m-y-	
Sladqb-XA	-----	-----	-----g	ww	-----	
Sladqb-Z	-----	-----y	-----l	ww-r	-----	
Sladqb-W	-----	-----	-----i-t	-----ya-	-----y-	
Sladqb-T	-----	-----	-----llt	-----	-----n-y-	
Sladqb-Y	-----	---g---	-----h-t	-----	-----	
Sladqb-C	-----f	---g---y	-----g	-----l-	-----	
Consensus	GRDSPQDFVY	QFKFECYFFN	GTQVRV-VAR	YIYNQEEHVR	FDSVDGEFRA	
	51					100
Sladqb-D	-----	-l---ea-	-----	-----	-----	
Sladqb-D2	-----	-l---ea-	-----	-----	-----	
Sladqb-XA	-----t-	-----	-----v	-----	-----	
Sladqb-Z	-----	-----e	-----	-----	-----	
Sladqb-W	-----a-	---s-i-	-t-----	-----	-----	
Sladqb-T	-----	-----	-t-----	-----	-----	
Sladqb-Y	-----	-----f	-t-----	-----	-----	
Sladqb-C	-----e-	s--s-	-m--v-r-	-----	-----	
Consensus	VTPLGRPDAD	YWNGQKDVLE	QKRAELDTVC	KHNYQIEEGT	TLQRRVQPTV	
	101					150
Sladqb-D	-----	-----	-----	-----	-----	
Sladqb-D2	-----	-----	-----	-----	-----	
Sladqb-XA	-----	-----	-----	-----	-----	
Sladqb-Z	-----	-----	-----	-----	-----	
Sladqb-W	-----	-----	-----	-----	-----	
Sladqb-T	-----	-----	-----	-----	-----	
Sladqb-Y	-----	-----	-----	-----	-----	
Sladqb-C	-----	-----	-----	-----	-----	
Consensus	TISPSKAEAL	NHHNLLVCAV	TDFYPSQVKV	QWFRNGQEET	AGVVSTPLIR	
	151					200
Sladqb-D	-----	-----	-----	-----	-----	
Sladqb-D2	-----	-----	-----	-----n-----	-----	
Sladqb-XA	-----	-----	-----	-----	-----	
Sladqb-Z	-----	-----	-----	-----	-----	
Sladqb-W	-----	-----	-----	-----	-----	
Sladqb-T	-----	-----	-----	-----	-----	
Sladqb-Y	-----	-----	-----	-----n-----	-----	
Sladqb-C	-----	-----	-----	-----	-----	
Consensus	NGDWTYQVLV	MLEMNLORGD	VYTCRVEHSS	LQSPILVEWR	AQSESAQSKM	
	201		230			
Sladqb-D	-----	-----	-----	-----	-----	
Sladqb-D2	-----	-----	-----	-----	-----	
Sladqb-XA	-----	-----	-----	-----	-----	
Sladqb-Z	-----	-----	-----	-----	-----	
Sladqb-W	-----	-----	-----	-----	-----	
Sladqb-T	-----	-----	-----	-----	-----	
Sladqb-Y	-----	-----	-----	-----	-----	
Sladqb-C	-----	-----	-----	-----	-----	
Consensus	LSGVGGFVLG	LIFLGLGLFI	RHRSQKGLVR			

Amino Acid Sequences of SLA-DQB Alleles